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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Jan M. Huml

Serial No.: 10/067,824 Art Unit: 3677

Filed: February 8, 2002 Examiner: C. Lugo

For: MULTI-POINT CASEMENT HANDLE

APPEAL BRIEF

To the Commissioner of Patents and Trademarks

Sir:

REAL PARTY IN INTEREST

The above-identified Applicant is the real party in interest in this case.

RELATED APPEALS AND INTERFERENCES

No other related appeals or interferences are pending at this time.

STATUS OF CLAIMS

Claims 1-6 and 15 were finally rejected over prior art.

Claims 7-14 and 16-19 were allowed.

A copy of all claims is appended hereto in the Appendix.

STATUS OF AMENDMENTS

Amendments made after the final office action were entered by the Examiner in an advisory action dated June 18, 2003.

SUMMARY OF THE INVENTION

The present invention relates to window operators, and more specifically, to operators for casement windows. A preferred embodiment has four major parts and two bearing rings. The four major parts are made of strong, rigid polymer. The bearing rings may be made of polypropylene or other self-lubricating polymer. The four major parts are a main body, a cover, an operating handle and a sliding tongue. (Specification page 2, lines 3-8).

The parts of the window operator are produced from polymers, which are non-corrosive and non-thermal conducting. The handle with the attached operator arm is inserted through the cover. The sliding tongue is placed within the main body. The end of the operator arm is placed in a groove in the sliding tongue before pressing the cover onto the main body and fusion welding the cover to the main body. The cover and body components are sonic welded with the sliding tongue and the actuator arm held inside of the plastic base of the window operator, creating a one-piece assembly. (Specification page 2, lines 9-15).

The use of the plastic polymer for the base housing, as well as for the arm and the actuator, eliminates the possibility of corrosion of the base material. Also, the polymer does not require finishing or painting to protect it from corrosion. (Specification page 2, lines 16-18).

A plastic casement windows operator has a plastic housing, a plastic sliding tongue and a plastic operating lever. The housing has a plastic main body and a plastic cover with complementary peripheral steps and peripheral energy directors and inward extending receivers

and pins with energy directors for joining the cover and main body after the plastic sliding tongue and plastic operating lever are installed. The main body has an inward extending cylindrical bearing opening, which holds a cylindrical bearing integrally formed between an operating handle and an activator arm. An activator cylinder at a remote end of the arm moves in an oval groove in the sliding tongue. Wings on the tongue support opposite jugs and cylindrical guides that slide along inner guides on the cover and main body. An extension on the flat body tongue has a U-shaped opening for connecting a window linkage. Integral rims extend around the tongue, the U-shaped opening and the oval groove. (Specification page 2, line 19 to page 2, line 7).

ISSUES

Is claim 1 patentable under 35 U.S.C. 103(a) over Dreifert (U.S. Patent No. 5,318,333) in view of Olsen et al. (U.S. Patent No. 5,582,445)?

Are claims 2, 3, 6 and 15 patentable under 35 U.S.C. 103(a) over Dreifert (U.S. Patent 5,318,333) and Olsen et al. (U.S. Patent 5,582,445) in view of Goforth (U.S. Patent No. 296,402)?

Is claim 1 patentable under 35 U.S.C. 103(a) over Rotondi et al. (U.S. Patent No. 6,450,554) in view of Olsen et al. (U.S. Patent No. 5,582,445)?

Are claims 2-5 patentable under 35 U.S.C. 103(a) over Rotondi et al. (U.S. Patent No. 6,450,554) and Olsen et al. (U.S. Patent 5,582,445) in view of Goforth (U.S. Patent No. 296,402)?

Is claim 15 patentable under 35 U.S.C. 103(a) over Rotondi et al. (U.S. Patent No. 6,450,554) in view of Dreifert (U.S. Patent 5,318,333) and Olsen et al. (U.S. Patent 5,582,445)?

GROUPING OF CLAIMS

The claims do not stand or fall together.

ARGUMENTS

The present claims are patentable under 35 U.S.C. 103.

In considering the patentability of the present invention, it is requested that the Board consider the invention as a whole, consider the scope and content of the prior art as a whole, consider the differences between the claims at issue and the prior art, and consider the level of ordinary skill in the art to which the invention pertains at the time the invention was made. Graham v. John Deere Co., 148 USPQ 459, 467 (1966).

THE INVENTION AS A WHOLE

The invention considered as a whole is best described by the appended claims.

PRIOR ART AS A WHOLE

The prior art to which the invention pertains is typified by the references of record.

DIFFERENCES BETWEEN THE INVENTION AND THE PRIOR ART

Each of the present claims defines unique features and each is individually patentable over the prior art.

The test in reviewing rejections under 35 U.S.C. 103 in which the examiner has relied on teachings of several references, is whether references, viewed individually and collectively, would have suggested claimed invention to a person possessing ordinary skill in the art, and citing references which merely indicate that isolated elements and/or features recited in the claims are known is not a sufficient basis for concluding that combination of the claimed elements would have been obvious. Ex parte Hiyamizu, 10 USPQ2d 1393-1395 (Board of

Patent Appeals and Inter., 1988); In re Kaslow, 217 USPQ 1089 (Fed. Cir. 1983); In re Deminski, 230 USPQ 313 (Fed. Cir. 1986).

Claim 1 is patentable under 35 U.S.C. 103(a) over Dreifert in view of Olsen.

Claim 1 distinguishes the invention from Dreifert and Olsen. There is nothing inherent in Dreifert and Olsen to suggest their combination in the way proposed by the Examiner.

As previously pointed out, Olsen is a sash lock, not used in casement windows. Olsen has only one moving part besides pins 52 and 68. Nothing would have suggested using Olsen in a casement window operator.

Dreifert's handle 50 and crank 65 are two pieces (column 9, lines 8-10). Nothing would have suggested a plastic lever connected to the main body and to the plastic sliding tongue, as in claim 1. Nothing in either reference would have suggested sliding a plastic sliding tongue in a plastic polymer housing, as in claim 1.

"That [the prior art] might incorporate elements which could be used in appellants' system does not render appellants' claims obvious when there is no suggestion of using these elements in substantially the same manner as appellants use them." In re Donovan, 184 USPQ 414, 421 (CCPA, 1975).

The Federal Circuit has held that the patent office is obligated to make necessary findings and to provide an administrative record showing the evidence on which the findings are based, accompanied by the agency's reasoning in reaching its conclusion. In re Zurko, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). The decision "must be justified within the four corners of the record." In re Gartside, 53 USPQ2d 1769, 1774 (Fed. Cir. 2000). The Examiner has neither made the necessary findings nor provided any reasoning for the arbitrary conclusion of obviousness based on an admission that the references do not teach the claimed features in the dependent claims.

Therefore, claim 1 is patentable under 35 U.S.C. 103(a).

Claims 2, 3, 6 and 15 are patentable under 35 U.S.C. 103(a) over Dreifert and Olsen in view of Goforth.

Claim 2 is patentable over Dreifert and Olsen in view of Goforth.

Nothing in Dreifert, Olsen or Goforth would have suggested their mutual combination in rejecting claim 2.

Olsen is a lock for sashes. Goforth is a multiple channel two-element lock for sashes. Nothing inherent in those references would have suggested their mutual combination or their further combination with a window and door slide operator shown in Dreifert.

Claim 2 distinguishes from the references in the same manner as claim 1 and adds a relatively thick rim around a sliding tongue flat body. That is not shown in any reference or any part of Goforth.

Therefore, claim 2 is patentable over Dreifert and Olsen in view of Goforth.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claim 3 is patentable over Dreifert and Olsen in view of Goforth.

Claim 3 adds to claims 2 and 1 a relatively thin rim about the U-shaped opening, which would not have been obvious from any of the three references. Claim 3 is patentable over Dreifert and Olsen in view of Goforth.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claim 6 is patentable over Dreifert and Olsen in view of Goforth.

Claim 6 adds to claim 2 an oval groove surrounded by an oval rim, which would not have been obvious from any reference. The element 42 is a step, not a rim (column 9, line 24, Figure 6). Claim 6 is patentable over Dreifert and Olsen in view of Goforth.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claim 15 is patentable over Dreifert and Olsen in view of Goforth.

Claim 15 points out a plastic main body and plastic cover not obvious from any reference, a central integral cylindrical bearing opening, not found in any reference, and an operating lever having a bearing extending through the housing, not found in any reference.

Claim 15 also points out the plastic sliding tongue, the U-shaped opening and the thick rim around the tongue body and the thin rim around the U-shaped opening, none of which would have been suggested by the references.

Claim 15 is patentable over Dreifert and Olsen in view of Goforth.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claim 1 is patentable under 35 U.S.C. 103(a) over Rotondi in view of Olsen.

Claim 1 distinguishes the invention from Rotondi and Olsen. Nothing inherent in Rotondi or Olsen would have suggested their mutual combination.

Rotondi has multiple pieces with multiple movements. Olsen has a single moving piece. The two operate differently. Olsen simply holds two parts together.

Neither Rotondi nor Olsen is a casement window operator. Neither have a plastic main body and a plastic cover. Neither have an operating lever with a central cylindrical bearing extending through a central integrally formed bearing opening in a main body. Neither has a plastic sliding tongue with a flat body and thick and thin rims surrounding the flat body and a U-shaped opening, all as set forth in claim 1. Neither has an oval opening surrounded by an oval rim receiving an actuating cylinder, as pointed out in claim 1.

To be anticipating, a prior art reference must disclose "each and every limitation of the claimed invention[,]... must be enabling[,] and must describe...[the] claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." In re Paulsen, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

"That [the prior art] might incorporate elements which could be used in appellants' system does not render appellants' claims obvious when there is no suggestion of using these elements in substantially the same manner as appellants use them." In re Donovan, 184 USPQ 414, 421 (CCPA, 1975).

Claim 1 is patentable over Rotondi in view of Olsen.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claims 2-5 are patentable under 35 U.S.C. 103(a) over Rotondi and Olsen in view of Goforth.

Claim 2 is patentable over Rotondi and Olsen in view of Goforth.

Nothing in Dreifert, Olsen or Goforth would have suggested their mutual combination in rejecting claim 2. Claim 2 distinguishes the invention from a combination of Rotondi, Olsen and Goforth.

Nothing inherent in the three references would have suggested their combination.

Rotondi is a multiple part, multiple movement sash lock.

Olsen is a simple single moving part sash lock.

Goforth is a multi-channel sash lock.

None of the three suggests combination with either of the others.

Claim 2 contains all features of claim 1 and differs from the references by pointing out the relatively thick rim around the flat tongue body.

Claim 2 is patentable over Rotondi and Olsen in view of Goforth.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claim 3 is patentable over Rotondi and Olsen in view of Goforth.

Claim 3 adds to claim 2 the relatively thinner rim around a U-shaped opening not found in the references, and which would not have been obvious from any of the three references. Claim 3 is patentable over Rotondi and Olsen in view of Goforth.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claim 4 is patentable over Rotondi and Olsen in view of Goforth.

Claim 4 adds to claim 1 wings and guide lugs on the wings, not found in the references, and which would not have been obvious from any of the three references. Claim 4 is patentable over Rotondi and Olsen in view of Goforth.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claim 5 is patentable over Rotondi and Olsen in view of Goforth.

Claim 5 adds to claim 4 cylindrical guides extending from the body opposite the lugs not found in the references, and which would not have been obvious from any of the three references. Claim 5 is patentable over Rotondi and Olsen in view of Goforth.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

Claim 15 is patentable under 35 U.S.C. 103(a) over Rot ndi in view of Dreifert and Olsen.

Claim 15 distinguishes the invention from Rotondi, Dreifert and Olsen. There is nothing inherent in the references that would have suggested their combination in a manner proposed by the Examiner.

Rotondi and Dreifert are multiple part, multiple movement devices that operate differently, would not have suggested their combination, and individually would have lead away from the invention.

Olsen is a sash lock with one moving piece, which has no relevance to the invention or to Rotondi or Dreifert.

Claim 15 distinguishes the invention from the references in the ways previously stated. Claim 15 points out a plastic main body and plastic cover not obvious from any reference, a central integral cylindrical bearing opening, not found in any reference, and an operating lever having a bearing extending through the housing, not found in any reference. Claim 15 points out the plastic sliding tongue, the U-shaped opening and the thick rim around the tongue body and the thin rim around the U-shaped opening, none of which would have been suggested by the references.

Claim 15 is patentable over Rotondi in view of Dreifert and Olsen.

Nothing in the reference teaches or suggests that this specific attribute is considered to be a design choice to one of ordinary skill in the art to determine, without having performed undo experimentation.

LEVEL OF ORDINARY SKILL IN THE ART

A person having ordinary skill in the art is an artisan being taught the reference teachings.

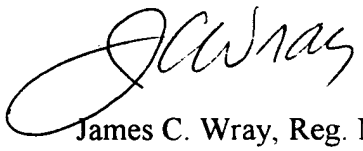
SUMMARY

When considering the present invention as a whole and the prior art to which the invention pertains as a whole, when considering the differences between the present invention and the prior art, and when considering the level of ordinary skill in the art to which the invention pertains, it is clear that the invention would not have been obvious under 35 U.S.C. 103 to a person having ordinary skill in the art at the time the invention was made.

CONCLUSION

Reversal of the Examiner and allowance of all the claims are respectfully requested.

Respectfully,



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APPENDIX

1. Casement window operator apparatus comprising a plastic polymer housing having a plastic main body and a plastic cover, a plastic sliding tongue fitted between the cover and the main body for sliding laterally therein, an extension on the sliding tongue, a U-shaped opening in the extension for engaging a connector on a window-moving linkage, a plastic lever connected to the main body for pivoting therein and connected to the plastic sliding tongue for sliding the tongue in the plastic polymer housing as the lever is moved.

2. The apparatus of claim 1, wherein the sliding tongue further comprises a flat body and a relatively thick rim extending around the flat body.

3. The apparatus of claim 2, further comprising a relatively thinner rim extending around the U-shaped opening

4. The apparatus of claim 2, further comprising wings extending from the flat body and guide lugs extending from the wings.

5. The apparatus of claim 4, further comprising cylindrical guides extending from the flat body opposite from the lugs.

6. The apparatus of claim 2, further comprising an oval groove formed in the flat body and surrounded by an oval rim.

7. Casement window operator apparatus comprising a plastic polymer housing having a plastic main body and a plastic cover, a plastic sliding tongue fitted between the cover and the main body for sliding laterally therein, an extension on the sliding tongue, a U-shaped opening in the extension for engaging a connector on a window-moving linkage, a plastic lever connected to the main body for pivoting therein and connected to the plastic sliding tongue for sliding the tongue in the plastic polymer housing as the lever is moved, the sliding tongue further comprises a flat body and a relatively thick rim extending around the flat body, an oval groove

formed in the flat body and surrounded by an oval rim, and recesses extending laterally from an end of the oval groove remote from the U-shaped opening

8. The apparatus of claim 7, further comprising curved lugs in the recesses for holding the sliding tongue in extreme positions.

9. The apparatus of claim 7, wherein the plastic lever has a generally flat shaped handle for moving by a user and has a cylindrical bearing portion and an actuator arm extending radially from the cylindrical bearing portion opposite the handle and an actuating cylinder extending from a remote end of the actuator into the oval groove in the flat body.

10. The apparatus of claim 9, further comprising a recess in an outer surface of the cylindrical bearing and a plastic bearing ring inserted in the recess.

11. Casement window operator apparatus comprising a plastic polymer housing having a plastic main body and a plastic cover, wherein the main body has inward extending reinforced tubular receivers, and wherein the cover has inward projecting pins for fitting in the receivers, a plastic sliding tongue fitted between the cover and the main body for sliding laterally therein, an extension on the sliding tongue, a U-shaped opening in the extension for engaging a connector on a window-moving linkage, and a plastic lever connected to the main body for pivoting therein and connected to the plastic sliding tongue for sliding the tongue in the plastic polymer housing as the lever is moved.

12. The apparatus of claim 11, wherein the pins have radially extending energy directors, wherein the main body has peripheral steps, and wherein the cover has peripheral energy directors, which fit in the peripheral steps for fusing the cover and the main body adjacent the energy directors upon application of ultrasonic energy.

13. Casement window operator apparatus comprising a plastic polymer housing having a plastic main body and a plastic cover, wherein the cover has an inward ledge, which provides a guide for cylindrical extensions, and wherein the main body has parallel guides for guide lugs, a plastic sliding tongue fitted between the cover and the main body for sliding

laterally therein, an extension on the sliding tongue, a U-shaped opening in the extension for engaging a connector on a window-moving linkage, and a plastic lever connected to the main body for pivoting therein and connected to the plastic sliding tongue for sliding the tongue in the plastic polymer housing as the lever is moved.

14. Casement window operator apparatus comprising a plastic polymer housing having a plastic main body and a plastic cover, wherein the main body and the cover have semi cylindrical shaped mounts with energy directors on the mounts for fusing the semi cylindrical mounts together into cylindrical mounts upon application of ultrasonic energy, a plastic sliding tongue fitted between the cover and the main body for sliding laterally therein, an extension on the sliding tongue, a U-shaped opening in the extension for engaging a connector on a window-moving linkage, and a plastic lever connected to the main body for pivoting therein and connected to the plastic sliding tongue for sliding the tongue in the plastic polymer housing as the lever is moved.

15. Casement window operator apparatus comprising a plastic polymer housing having a plastic main body and a plastic cover, the plastic main body having a central integrally formed cylindrical bearing opening, an operating lever having a movable handle extending outside of the main body, the operating lever having a central cylindrical bearing extending through the cylindrical bearing opening and having an actuator arm radially extending from the cylindrical bearing and having an actuating cylinder at a remote end of the actuator arm, a plastic sliding tongue fitted between the cover and the main body for sliding laterally therein, an extension on the sliding tongue, a U-shaped opening in the extension for engaging a connector on a window-moving linkage, the actuating cylinder connected to the plastic sliding tongue for sliding the tongue in the plastic polymer housing as the lever is moved, the sliding tongue further comprises a flat body and a relatively thick rim extending around the flat body and a relatively thinner rim extending around the U-shaped opening, wings extending from the flat body and guide lugs extending from the wings, cylindrical guides extending from the flat body opposite

from the lugs, an oval groove formed in the flat body and surrounded by an oval rim and receiving the actuating cylinder for sliding the plastic tongue in the body as the handle is moved.

16. Casement window operator apparatus comprising a plastic polymer housing having a plastic main body and a plastic cover, the plastic main body having a central integrally formed cylindrical bearing opening, an operating lever having a movable handle extending outside of the main body, the operating lever having a central cylindrical bearing extending through the cylindrical bearing opening and having an actuator arm radially extending from the cylindrical bearing and having an actuating cylinder at a remote end of the actuator arm, a plastic sliding tongue fitted between the cover and the main body for sliding laterally therein, an extension on the sliding tongue, a U-shaped opening in the extension for engaging a connector on a window-moving linkage, the actuating cylinder connected to the plastic sliding tongue for sliding the tongue in the plastic polymer housing as the lever is moved, the sliding tongue further comprises a flat body and a relatively thick rim extending around the flat body and a relatively thinner rim extending around the U-shaped opening, wings extending from the flat body and guide lugs extending from the wings, cylindrical guides extending from the flat body opposite from the lugs, an oval groove formed in the flat body and surrounded by an oval rim and receiving the actuating cylinder for sliding the plastic tongue in the body as the handle is moved, further comprising recesses extending laterally from an end of the oval groove remote from the U-shaped opening and curved lugs in the recesses for holding the sliding tongue in extreme positions.

17. Casement window operator apparatus comprising a plastic polymer housing having a plastic main body and a plastic cover, the plastic main body having a central integrally formed cylindrical bearing opening, further comprising complementary inward extending reinforced tubular receivers, and inward projecting pins for fitting in the receivers on the main body and cover, and wherein the pins have radially extending energy directors, wherein the main body and the cover have peripheral steps and complementary peripheral energy directors, which

fit in the peripheral steps for fusing the cover and the main body adjacent the energy directors upon application of ultrasonic energy, an operating lever having a movable handle extending outside of the main body, the operating lever having a central cylindrical bearing extending through the cylindrical bearing opening and having an actuator arm radially extending from the cylindrical bearing and having an actuating cylinder at a remote end of the actuator arm, a plastic sliding tongue fitted between the cover and the main body for sliding laterally therein, an extension on the sliding tongue, a U-shaped opening in the extension for engaging a connector on a window-moving linkage, the actuating cylinder connected to the plastic sliding tongue for sliding the tongue in the plastic polymer housing as the lever is moved, the sliding tongue further comprises a flat body and a relatively thick rim extending around the flat body and a relatively thinner rim extending around the U-shaped opening, wings extending from the flat body and guide lugs extending from the wings, cylindrical guides extending from the flat body opposite from the lugs, an oval groove formed in the flat body and surrounded by an oval rim and receiving the actuating cylinder for sliding the plastic tongue in the body as the handle is moved.

18. The apparatus of claim 17, further comprising an inward ledge, which provides a guide for the cylindrical extensions, and parallel inward extending guides for the guide lugs on the cover and main body.

19. The apparatus of claim 17, wherein the main body and the cover have semi cylindrical shaped mounts with energy directors on the mounts for fusing the semi cylindrical mounts together into cylindrical mounts upon application of ultrasonic energy.